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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/666,793

**Applicant(s)**

MATTHEWS ET AL.

**Examiner**

KimbleAnn Verdi

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 and 14 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date May 20, 2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Claims 1-36 are pending in the current application.

#### ***Claim Objections***

1. Claims 2-12, and 27-36 are objected to because of the following informalities:
  - a. claims 2-12, line 1, the recitation of "A method", should be "The method";
  - b. claims 14-24, the recitation of "A data processing system" should be "The data processing system";
  - c. claims 26-36, line 1, the recitation of "A computer program product", should be "the computer program product";
  - d. claims 18 and 30, line 3, the recitation of "transaction;", should be "transaction.".
  - e. Appropriate correction is required.

#### ***Double Patenting***

2. Applicant is advised that should claims 10, 22, and 34 be found allowable, claims 11, 23, and 35 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-36 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-39 of copending Application No. 10/448269 (hereinafter APP269). Although the conflicting claims are not identical, they are not patentably distinct from each other because APP269 is directed to the same invention for a messaging system which enables transactional work, done as a result of a recipient processing an asynchronous message, to be involved in the transaction under which message was sent. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. As to claim 1, APP269 discloses a data processing method for a data processing system comprising a messaging service and a transaction service, the method comprising the steps of:

receiving a request, from a sender, to send an asynchronous message, comprising message data, to a queue, wherein the request is received under the scope of a transaction (claim 1, lines 5-8 of APP269);

registering a definition for the queue, the definition providing details of an operation provided by the recipient (claim 5, lines 1-6 of APP269);

processing the request to send a message by delivering the message, prior to completion of the transaction, to a recipient which is registered with the messaging service to process messages from the queue wherein the message is delivered to the recipient by calling the operation and including details of the message (claim 1, lines 10-13 and claim 6, lines 10-17 of APP269);

receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the message (claim 1, lines 15-19 of APP269); and

completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete (claim 1, lines 21-23 of APP269);

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent (claim 1, lines 25-28 of APP269).

As to claims 2-12 these claims correspond to claims 3-13.

As to claim 13 this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

As to claims 14-24 these claims correspond to claims 16-26.

As to claim 25 this claim is rejected for the same reasons as claim 1, see the rejection to claim 1 above.

As to claims 26-36 these claims correspond to claims 29-39.

***Examiner's Comments Concerning the Recited Claims and 35 USC § 101***

6. Claims 13-24 recite a "data processing system". As currently recited the "system" appears to comprise only computer software elements. Thus, the claims are a program per se and do not fall within any of the four enumerated categories of patentable subject matter in section 101.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 13-16, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over “Strategies for Integrating Messaging and Distributed Object Transactions”, by Tai et al. (hereinafter Tai) in view of United States Patent 6,138,143 to Gigliotti et al. (hereinafter Gigliotti), and further in view of United States Patent 6,324,589 B1 to Chessell.

9. As to claim 1, Tai teaches the invention substantially as claimed including a data processing method for a data processing system comprising a messaging service and a transaction service, the method comprising the steps of:

receiving a request, from a sender, to send an asynchronous message (page 314, lines 6-9), comprising message data (page 311, lines 6-10), to a queue (page 319, lines 30-31), wherein the request is received under the scope of a transaction (page 326, lines 30-31);

registering a definition for the queue (e.g. event channel for publishing event, col. 11, lines 19-25), the definition providing details of an operation provided by the recipient (e.g. data included in event, col. 7, lines 33-36);

processing the request to send a message by delivering the message (page 324, lines 5-7), prior to completion of the transaction, to a recipient, which is registered with the messaging service (e.g. recipient, subscriber, consumer page 312, lines 3-10) to process messages from the queue (page 323, lines 1-3).

Tai does not explicitly disclose registering a definition for the queue, the definition providing details of an operation provided by the recipient;

wherein the message is delivered to the recipient by calling the operation and including details of the message;

receiving one or more requests to register involvement of one or more participants in the transaction, wherein each participant represents transactional work done as a result of the recipient processing the message; and

completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete;

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent.

However Gigliotti teaches registering a definition for the queue (e.g. event channel for publishing event, col. 11, lines 19-25), the definition providing details of an operation provided by the recipient (e.g. data included in event, col. 7, lines 33-36);



wherein the message is delivered to the recipient by calling the operation and including details of the message (col. 11, liens 23-35);

receiving one or more requests to register involvement of one or more participants in the transaction (e.g. server objects, col. 7, lines 56-58), wherein each participant represents transactional work done (col. 7, lines 49-56) as a result of the recipient processing the message (e.g. event published by client, col. 7, lines 43-49); and

whereby transactional work done, as a result of the recipient processing the message, is involved in the transaction under the scope of which the message was sent (e.g. Transaction Context, 206, Fig. 4, col. 12, lines 13-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the transaction context of Tai with the teachings of a transaction context from Gigliotti because this feature would have provided a mechanism to address the shortcomings in known systems for asynchronous transaction processing in a distributed computing environment (col. 3, lines 32-35) utilizing a Transaction context which includes methods to add a participant in a transaction, register commit or rollback votes from participants, and can commit or rollback an entire set of operations and allow related objects access to uncommitted data (col. 6, lines 17-22 of Gigliotti).

In addition However Chessell teaches completing the transaction wherein the completing step comprises instructing each of the one or more participants to complete (col. 3, lines 42-50).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the transaction service of Tai as modified by Gigliotti with the teachings of coordinator object from Chessell because this feature would have further provided a mechanism to keep track of which server objects are involved in the transaction, so that when the transaction is finished, each server object involved in the transaction can be told to commit the changes made locally to the local database associated with that server object, in a single unified effort (col. 3, lines 33-38 of Chessell).

10. As to claim 2, Tai as modified teaches a method as claimed in claim 1 wherein one of the one or more requests to register involvement one or more participants in the transaction, registers involvement of the recipient as a participant in the transaction (col. 7, lines 56-58 of Gigliotti).

11. As to claim 3, Tai as modified teaches a method as claimed in claim 2 wherein the request to register the involvement of the recipient as a participant in the transaction includes details of the queue (e.g. reference to client object in event, col. 8, lines 4-5 of Gigliotti), wherein the completing step instructs the recipient to complete by sending one

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or more messages to the queue (e.g. callback to client object, col. 8, lines 4-9 of Gigliotti).

12. As to claim 4, Tai as modified teaches a method as claimed in claim 2 wherein the request to register the involvement of the recipient as a participant in the transaction includes details of a second queue (e.g. 2<sup>nd</sup> event channel for publishing event, col. 11, lines 19-25 of Gigliotti) wherein the completion step instructs the recipient to complete by sending one or more messages to the second queue (e.g. S1 publishes new event 260, col. 11, lines 61-67 of Gigliotti).

13. As to claims 13-16, these claims are rejected for the same reasons as claims 1-4 respectively, see the rejections to claims 1-4 above.

14. As to claims 25-28, these claims are rejected for the same reasons as claims 1-4 respectively, see the rejections to claims 1-4 above.

15. Claims 5-12, 17-24, and 29-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Strategies for Integrating Messaging and Distributed Object Transactions", by Tai et al. (hereinafter Tai) in view of United States Patent 6,138,143 to Gigliotti et al. (hereinafter Gigliotti) and further in view of United States Patent 6,324,589 B1 to Chessell, as applied to claim 1 above, and further in view of United States Patent 6,012,094 to Leymann et al. (hereinafter Leymann).

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16. As to claim 5, Tai as further modified by Chessell teaches a method as claimed in claim 1 wherein the transaction is a first transaction and the method comprises the further step of:

processing the message by the recipient (e.g. event published by client, col. 7, lines 43-49 of Gigliotti).

Tai as further modified by Chessell does not explicitly disclose wherein the step of processing of the message by the recipient comprises the steps of:

informing a second transaction of the first transaction, details of which were included with the message; and

calling a second recipient and as part of the calling step passing the message data to the second recipient for processing under the scope of the second transaction.

However Leymann teaches wherein the step of processing of the message by the recipient comprises the steps of:

informing a second transaction of the first transaction (T11 requests processing of stratus S2, Fig. 8, col. 13, line 22-24), details of which were included with the message (e.g. put message, col. 10, lines 24-26); and

calling a second recipient (e.g. stratus S4, Fig. 8) and as part of the calling step passing the message data to the second recipient for processing under the scope of the second transaction (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the distributed transaction processing of Tai as modified with Gigliotti with the teachings of transaction stratification from Leymann because this feature would have further provided a mechanism to reduce the network traffic required to coordinate a collection of potentially distributed transactions (col. 13, lines 33-35 of Leymann).

17. As to claim 6, Tai as further modified, teaches wherein the processing of the message by the recipient comprises the further step of: starting (e.g. request processing of Leymann) the second transaction (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29 of Leymann).

18. As to claim 7, Tai as further modified teaches wherein the processing of the message by the recipient comprises the further steps of:

prior to calling the second recipient, registering as a temporary participant in the second transaction (S1 registers as participant in transaction context 206, Fig. 4, col. 11, lines 61-64 of Gigliotti); and

on return from calling the second recipient (e.g. publishes new event to which S3 262 subscribes, col. 11, lines 65-67 of Gigliotti), unregistering (e.g. callback client of Gigliotti) as a temporary participant in the second transaction (col. 12, lines 5-9 of Gigliotti).

19. As to claim 8, Tai as further modified teaches a wherein as part of the unregistering step (e.g. callback of Gigliotti) a vote is passed to the second transaction, the vote comprising an indication as to whether the second transaction should commit or rollback (S1 252 votes 268 with transaction context 206 to commit or roll back the transaction, col. 12, lines 5-9 of Gigliotti).

20. As to claim 9, Tai as further modified teaches comprising the further step of:  
in response to the unregistering step including a vote comprising an indication that the second transaction should rollback, marking the second transaction (e.g. store in Vote Table, Fig. 3A of Gigliotti) as rollback only (col. 9, lines 2-4 of Gigliotti).

21. As to claim 10, Tai as further modified teaches wherein the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a subordinate transaction to the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which were included with the message (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

22. As to claim 11, Tai as further modified teaches wherein the second transaction (e.g. stratum S4, Fig. 8 of Leymann) acts as a nested transaction within the transaction (e.g. stratus S2, Fig. 8 of Leymann), details of which were included with the message (e.g. T21 requests 821 processing of stratum S4, Fig. 8, col. 13, lines 26-29, using put message, col. 10, lines 24-26 of Leymann).

23. As to claim 12, Tai as further modified teaches method wherein the second transaction acts as a nested transaction within the transaction, details of which were included with the message and the method comprises further the steps of:

in response to the unregistering step (e.g. callback of Gigliotti) including a vote comprising an indication that the second transaction should rollback (S1 252 votes 268 with transaction context 206 to commit or roll back the transaction, col. 12, lines 5-9 of Gigliotti):

rolling back the second transaction (col. 8, lines 19-20 of Gigliotti); and  
restoring the message to the queue (the creator sends a message to each participant to rollback the transaction, col. 2, lines 43-46 of Gigliotti) (tx.rollback(), page 322, line 42 of Tai)

24. As to claims 17-24, these claims are rejected for the same reasons as claims 1-12 respectively, see the rejections to claims 5-12 above.

25. As to claims 29-36, these claims are rejected for the same reasons as claims 1-12 respectively, see the rejections to claims 5-12 above.

### ***Response to Arguments***

26. Applicant's arguments filed June 11, 2008 have been fully considered but they are not persuasive.

Applicant simply points out what are cited in each of the claims and asserts that the references do not meet the claimed limitations (see the remarks, pp. 17-20).

In the Office Action, the examiner mapped each claimed limitation to specific element(s) and/or relevant passages in the references to show how the references meet the claim limitations. Applicant in response did not provide any underlying analysis as to why the portions of the prior art relied on did not support the examiner's position.

This response by Applicant is insufficient to satisfy the requirement of specific argument to have the claims considered for patentability; in accordance with 37 C.F.R. § 1.111 Applicant must distinctly and specifically point out "how the language of the claims patentably distinguishes them from the references". Accordingly, a prima facie case of obviousness is maintained as set forth in the rejections above.

### ***Conclusion***

27. The prior art made of record on the accompanying PTO-892 and not relied upon, is considered pertinent to applicant's disclosure.

28. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



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29. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 9, 2008

KV

/VAN H NGUYEN/

Primary Examiner, Art Unit 2194